TWENTY NEW BUTTERFLIES FROM THE SOLOMON ISLANDS (LEPIDOPTERA: HESPERIIDAE; LYCAENIDAE; NYMPHALINAE; SATYRINAE; DANAINAE)

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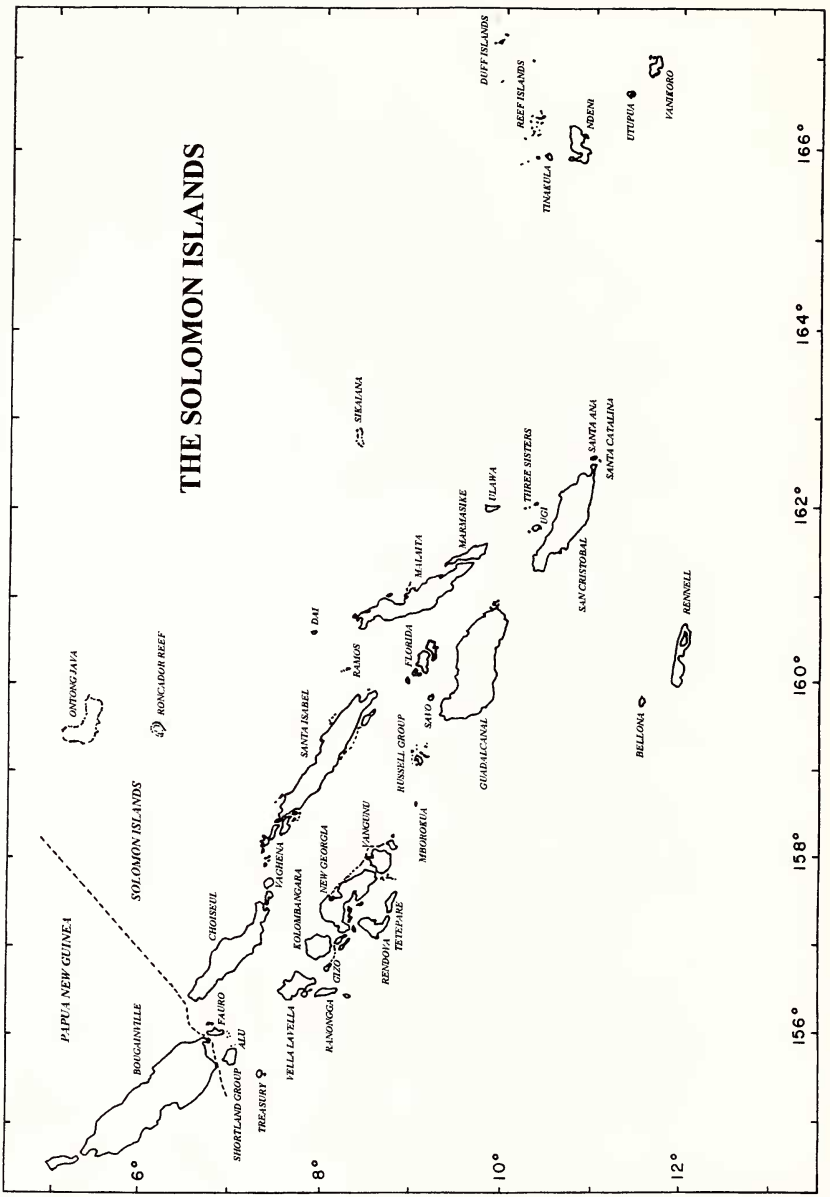
Abstract. Following field work in 1996 and 1997, one new butterfly species, eighteen subspecies and one form are described from the Solomon islands: *Argyronympha danker* sp. n. (Malaita); *Allora doleschallii cristobalensis* ssp. n. (San Cristobal); *Tagiades japetus suumoli* ssp. n. (Ulawa); *Epinastidia arienis taisia* ssp. n. (San Cristobal); *E. a. outgrabe* ssp. n. (Malaita); *Anthene paraffinis cristobalus* ssp. n. (San Cristobal); *Anthene lycaenoides orientalis* ssp. n. (Choiseul); *Algiachroa woodfordi malaitae* ssp. n. (Malaita); *Vindula arsinoe intermedia* ssp. n. (Russell Group); *Mynes woodfordi shannoni* ssp. n. (Malaita); *Hypolimnas pithoeka leveri* ssp. n. (Santa Cruz Group); *Cyrestis acilia russellensis* ssp. n. (Russell Group); *Phaedyma fissizonata olega* ssp. n. (Treasury); *Ph. f. philipi* ssp. n. (Ulawa); *Tirumala hamata richardi* ssp. n. (Ulawa); *Danaus affinis monoensis* ssp. n. (Treasury); *D. a. ulawaensis* ssp. n. (Ulawa); *D. a mendana* ssp. n. (Santa Cruz Group); *Euploea batesii ackeryi* ssp. n. (Ulawa); *Euploea leucostictos* form *roseus* f. n. (Ulawa). Brief notes relating to the status of some other Solomons butterfly taxa are presented and as a result, the name *sapor* Godman & Salvin 1888, is placed in the combination *Vindula arsinoe sapor* stat. n.; *obscura* Ribbe, 1898 syn. n. is synonymised with *sapor*; *Hypolimnas pithoeka salomonis* D'Abrera, 1978 syn. n. is synonymised with nominotypical *pithoeka* Kirsch, 1877, and *Phaedyma virideus* Eliot, 1969 stat. n. is raised to species status.

INTRODUCTION

Despite a colonial history, the numerous islands of the Solomons Archipelago (Map 1) are not well known faunistically. This is particularly so in the case of the butterflies and little systematic collecting has been carried out since the time of Meek and Woodford in the late 19th and early 20th centuries. The author spent eight months in the field in 1996 and 1997, on three separate visits, when many new taxa were discovered (Tennent, 1998; 1999 a–c; 2000 a–c; in press a, b) and numerous data relating to the distribution of butterfly taxa in the Solomons obtained. The aim of the present paper is to make names available for a forthcoming book on the butterflies of the Solomon Islands (Tennent, in prep.).

The following abbreviations are used: The Natural History Museum, London (BMNH); Oxford University Museum, Oxford (OUM); Australian National Insect Collection, CSIRO, Canberra (ANIC); Bernice P. Bishop Museum, Honolulu (BPBM); Dodo Creek Research Station, Honiara (DCRS); forewing length (fwl); upperside (ups); underside (uns); upperside forewing (upf); upperside hindwing (uph); underside forewing (unf); underside hindwing (unh); sea level (sl); type locality (TL).



Map 1. The Solomon Islands.

New taxa

Hesperiidae

***Tagiades japetus suumoli* ssp. n. (Figs 1, 2, 11, 12)**

Description. A large and distinctive race, closer in appearance to *T. j. kazana* Evans, 1934, from Treasury island than to *T. j. hovia* Swinhoe, 1904, which flies in the remainder of the Solomons Archipelago. Male fwl 23 mm; resembles other Solomons races of *T. japetus* Stoll, 1781; larger, fw longer; ups plain brown; upf postdiscal and subapical spots small; uph tornal area with indistinct grey submarginal markings (tornus clear white, variable in extent, in *T. j. hovia*); fringes brown (white in *T. j. hovia*); uns plain brown (darker brown in *T. j. hovia* and *T. j. kazana*); unf postdiscal spots well developed; unh with indistinct grey suffusion extending from inner margin to vein 4 and cell, with distinctive elongated markings in spaces 2 and 3 (less extensive, less elongated in *T. j. kazana*; unh largely white in *T. j. hovia*); genitalia not examined. Female similar.

Distribution. Ulawa.

Type material. HOLOTYPE ♂, Solomon Islands, Ulawa, north coast, Su'umoli village area, SL, 23.iii.1997, W. J. Tennent (BMNH); PARATYPES: 1 ♂, 1 ♀, same data as holotype; 1 ♀, ditto, 22.iii.1997; 4 ♂♂, Ulawa, Harrina village area, 40 m, 25.iii.1997, W. J. Tennent (all BMNH).

Comment. Whilst geographically not particularly remote, Ulawa is one of the least visited of the Solomon Islands, probably because there is no airstrip, no regular ferry service, and the ocean currents which run between it, Malaita and San Cristobal are strong and dangerous. Considering its small size, it has a high proportion of endemic butterfly taxa at subspecies level, which apparently have closer affinity with fauna of the western islands than with the adjacent islands of Malaita and San Cristobal (Tennent, 1998).

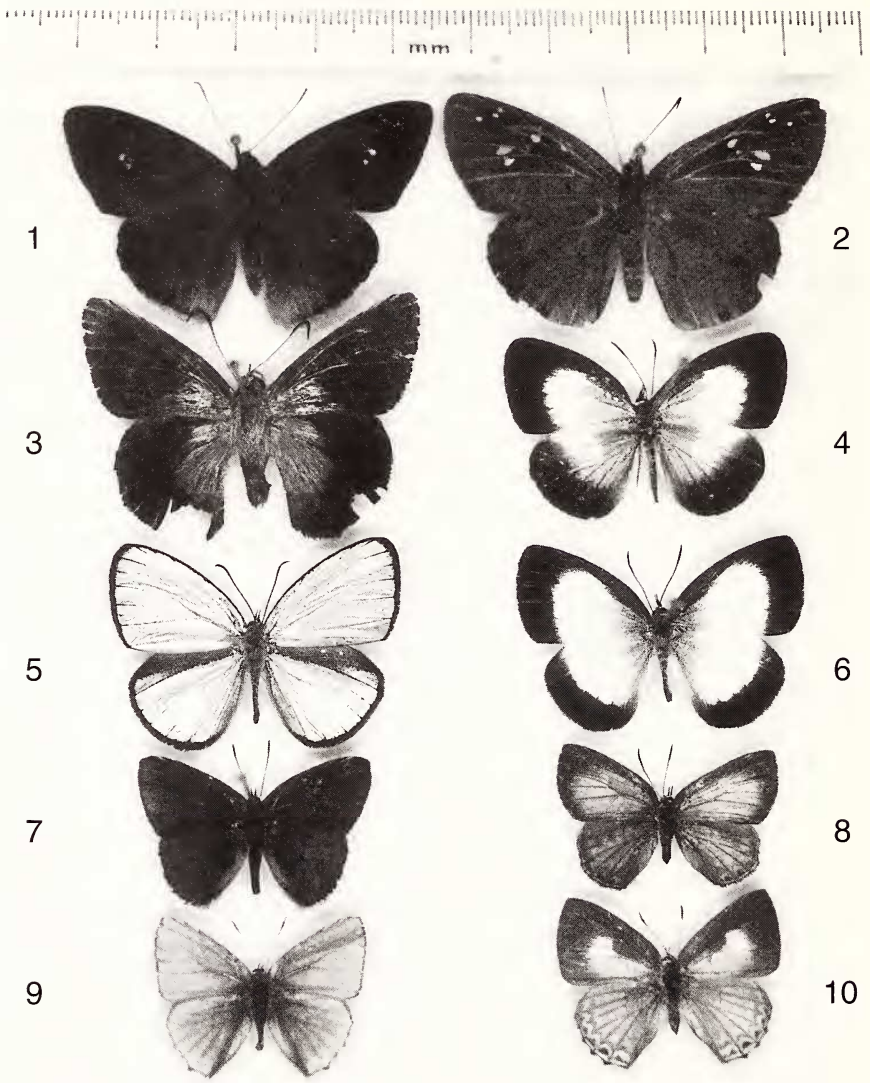
***Allora doleschallii cristobalensis* ssp. n. (Figs 3, 13)**

Description. Similar to other races of *A. doleschallii* C. Felder, 1860. Thorax and ups wing areas blue basally (green or blue-green in *A. d. luna* Evans, 1934 and *A. d. solon* Evans, 1949); uns dark grey-brown (dark brown in *A. d. luna* and *A. d. solon*); unf subapical markings absent on holotype; postmedian and discal markings prominent (slightly less prominent in *A. d. luna*; small or vestigial in *A. d. solon*); unh postbasal spot small, subtornal spot vestigial (well developed in *A. d. luna* and *A. d. solon*); genitalia not examined. Female unknown.

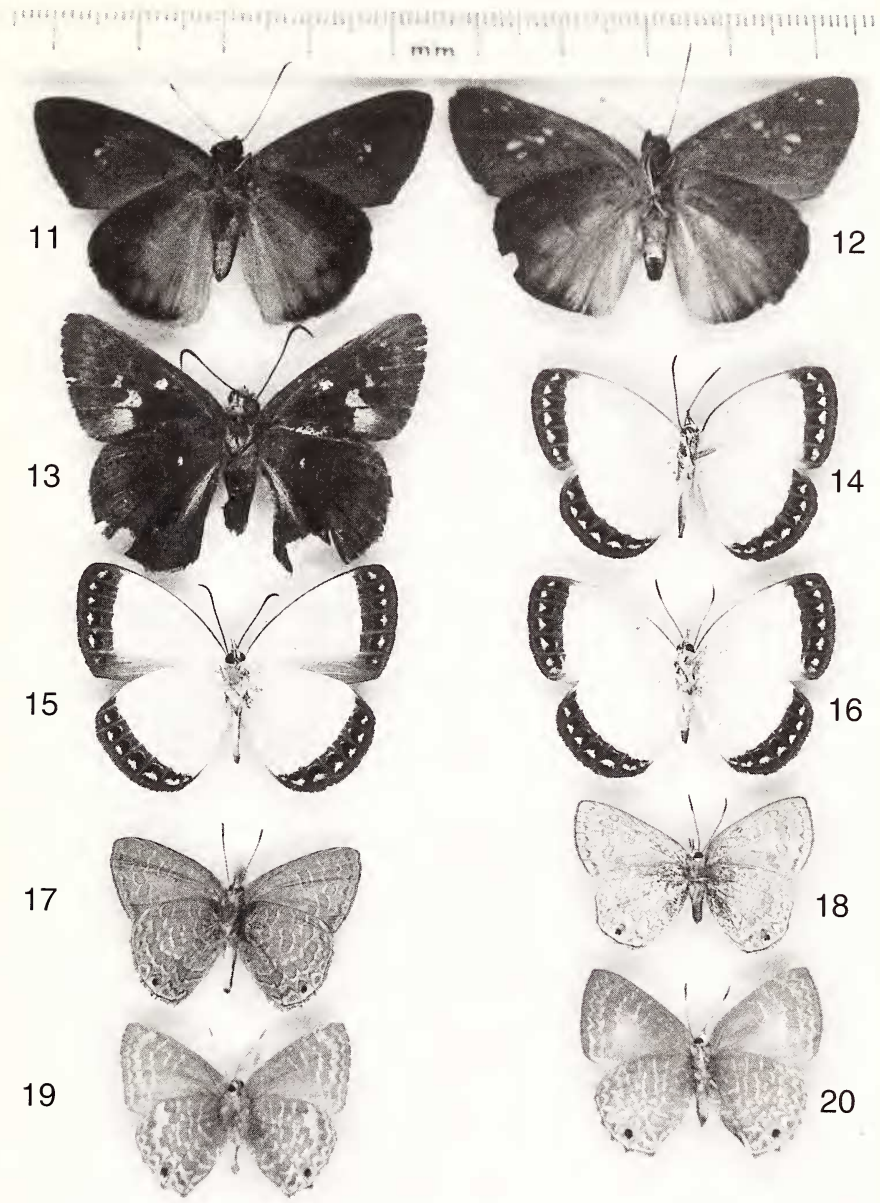
Distribution. San Cristobal.

Type material. HOLOTYPE ♂: Solomon Islands, San Cristobal, above Hauta, 500–700 m, 3.iv.1997, W. J. Tennent (BMNH).

Comment. This is a wary and fast flying species, which is difficult to catch. Although only the holotype was secured, other specimens seen on several visits to San Cristobal were clearly different to *A. doleschallii* races on other Solomon islands. Other than the isolated southern islands of Rennell and Bellona, the large, forested and little-known island of San Cristobal has, together with its satellites, a higher proportion of endemic taxa at both species and subspecies level, than any other island in the Solomons chain (Tennent, 1998). Parsons (1998) spelled the name of this taxon as '*doleschalii*', claiming that Evans' (1949) spelling of '*doleschallii*' was incorrect. In fact, Evans was correct (*cf.* Felder, 1860: 460).



Figs 1–10, upperside, 11–20, underside. *Tagiades japetus simmoli.* ssp. n. (Ulawa), 1, 11 ♂ holotype; 2, 12 ♀ paratype; *Allora doleschallii cristobalensis* ssp. n. (San Cristobal), 3, 13 ♂ holotype; *Epinastidia arienis omtgrabe* ssp. n. (Malaita), 4, 14 ♀ holotype; *Epinastidia arienis taisia* ssp. n. (San Cristobal), 5, 15 ♂ paratype; 6, 16 ♀ holotype; *Anthene paraffinis cristobalus* ssp. n. (San Cristobal), 7, 17 ♂ holotype; 8, 18 paratype; *Anthene lycaenoides orientalis* ssp. n. (Choiseul), 9, 19 ♂ holotype; 10, 20 ♀ paratype.



Figs 11–20. (caption opposite)

Lycaenidae

***Epimastidia arienis taisia* ssp. n. (Figs 5, 6, 15, 16)**

Description. Male fwl 20 mm; virtually indistinguishable from *E. a. arienis* Druce, 1891; uns blue spots in marginal border tend to be slightly darker blue; pale crescent-shaped marks distad to blue spots generally ill-defined; genitalia not examined. Female like *E. a. arienis*; ups marginal borders black (dark brown in *E. a. arienis*); significantly narrower than in *E. a. arienis*, basal margin of border regular, well defined (irregular, slightly diffuse in *E. a. arienis*); basal areas with dark scales, tinged blue, less extensive than *E. a. arienis*; uns borders wider, darker than *E. a. arienis*; submarginal spots small, plain blue (larger, whitish-blue in *E. a. arienis*).

Distribution. San Cristobal

Type material. HOLOTYPE ♀: Solomon Islands, San Cristobal, above Hauta, 5–700 m, 1.iv.1997, W. J. Tennent (BMNH); PARATYPES: 1 ♂, 1 ♀, same data as holotype; 8 ♂♂, ditto, 3.iv.1997, W. J. Tennent; 2 ♂♂, San Cristobal, Yanuta, 19–29.iv.1908, Meek; 2 ♂♂, San Cristobal [south coast], Makira harbour, 1–9.v.1908, Meek (all BMNH).

Etymology. Named for Ros and Willie Taisia, whose practical advice and assistance was very helpful to the author during several field visits to the Solomons in 1996 and 1997.

Comment. Although *E. arienis* has been known from San Cristobal for many years, only males were previously available. Material obtained in 1997 includes what appear to be the first female specimens collected on that island and are distinctive.

***Epimastidia arienis outgrabe* ssp. n. (Figs 4, 14)**

Description. Female fwl 18 mm; resembles *E. a. arienis*; ups borders broad, black (dark brown in *E. a. arienis*); upf basal area extensively clear pale blue (less extensive, dark brown, obscurely tinged blue in *E. a. arienis*); uph basally blue, extending along inner margin to submarginal border in spaces 1a–2; uns resembles *E. a. taisia*. Male unknown.

Distribution. Malaita.

Type material. HOLOTYPE ♀: Solomon Islands, Malaita, north, above Malu'u, SL-580 m, 24.x.1997, W. J. Tennent (BMNH).

Comment. E. arienis is found in a number of races in Australasia. With the exception of the race described here from Malaita, in which the female is partly white and partly blue, Solomons races of *arienis* have 'white' females, whilst elsewhere (e.g. the Bismarck Archipelago) females are predominantly 'blue' on the ups.

***Anthene paraffinis cristobalus* ssp. n. (Figs 7, 8, 17, 18)**

Description. Male fwl 14 mm; virtually indistinguishable from *A. p. nereia* Tite, 1966; genitalia not examined; female resembles other Solomons races of *A. paraffinis* Fruhstorfer, 1916; ups blue areas purple-blue, extensive (variable in extent in *A. p. paraffinis* and *A. p. nereia*; subdued blue in *A. p. nereia*; silvery-blue in *A. p. paraffinis*); uns colour grey-brown (brown in *A. p. paraffinis* and *A. p. nereia*); arrangement of fine lines less prominent than in *A. p. paraffinis* and *A. p. nereia.*

Distribution. San Cristobal and Ugi.

Type material. HOLOTYPE ♂, Solomon Islands, Ugi, west coast, north of Pawa, SL-60 m, 16.x.1997, W. J. Tennent (BMNH); PARATYPES: 1 ♀, same data as holotype; 5 ♀♀, ditto, 27.iii.1997; 1 ♀, San Cristobal, Kira-Kira, SL, 9.viii.1996, W. J.

Tennent; 1 ♀, ditto, 10.viii.1996; 1 ♀, ditto, 15.viii.1996; 1 ♀, ditto, 16.viii.1996; 1 ♂, 1 ♀, Ugi, G. F. Mathew (paratypes of *A. p. nereia*) (all BMNH).

Comment. There has been confusion in the distribution of races of *A. paraffinis* in New Guinea and the Solomons. Oriental *Anthene* were revised by Tite (1966), who included the Bismarcks, Bougainville, Shortlands, Treasury, Choiseul and islands of the New Georgia Group in the distribution of *A. p. paraffinis* (Tite, 1966: 264). He went on to describe (Tite, 1966: 266) *A. p. nereia* from Guadalcanal, the Florida Group, Malaita and Ugi. Localities for *nereia* included "Gela (=Guadalcanal), Florida and Tulagi". In fact Gela, or Nggela, is an early name for what is now more usually called Florida, and Tulagi, the pre-second world war Solomons capital, is a small island off the southwest coast of the main island of Florida. Tite gave (1966: 266) 'v.1891' and 'iv.1891' for date of capture of the *nereia* holotype and allotype respectively; they were taken by Meek in 1901.

Parsons (1998: 415) reported both *A. p. paraffinis* and *A. p. nereia* from New Guinea, and included the Bismarcks in the distribution of the former and Bougainville in the distribution of the latter. D'Abrera (1990: 359), gave Gizo, a small island of the New Georgia Group, as a locality for both *A. p. paraffinis* and *A. p. nereia*. Tite acknowledged that *nereia* was very similar to nominotypical *paraffinis* in both sexes, and provided a series of differences which were said to separate the two, some of which appear to relate to individual variation in this species. Examination of available material, including fresh material obtained during field work in 1996 and 1997, suggests that Tite was correct in restricting *nereia* to Guadalcanal, Florida and Malaita. Specimens from the Russell group, west of Guadalcanal, also appear to be referable to this race. Material from other islands north and west of Gaudalcanal, including Santa Isabel and Choiseul, is referable to *A. p. paraffinis* and one might reasonably expect Bougainville populations also to be nominotypical. The known distribution of *A. paraffinis* in the Solomons Archipelago accords closely with what is known of the biogeography of the region (Tennent, 1998).

Anthene lycaenoides orientalis ssp. n. (Figs 9, 10, 19, 20)

Description. Male fwl 13 mm; similar to *A. l. sutrana* Fruhstorfer, 1916 (New Guinea); smaller, ups less purple; hw margin less scalloped at tornus; uns grey-brown (brown in *A. l. sutrana*); fine lines prominent (more subdued in *A. l. sutrana*); unf submarginal and postmedian lines close together (separated in *A. l. sutrana*); unh postmedian markings large, 'blotched' towards costa; genitalia not examined. Female ups like *A. l. sutrana*; upf white discal patch smaller, less clearly defined; basal scales silver-blue (mauve-blue in *A. l. sutrana*); uph pale suffusion more extensive; uns markings more conspicuous; unf usually with pale discal patch, often obscure and occasionally absent (always well developed, may be enlarged to form median band in *A. l. sutrana*).

Distribution. Choiseul. Possibly also Bougainville (see comment, below).

Type material. HOLOTYPE ♂: Solomon Islands, Choiseul, 3–6 km north of Mole, 40–120 m, 16.iv.1997, W. J. Tennent (BMNH); PARATYPES: 2♂♂, 10 ♀♀, same data as holotype; 2 ♀♀, ditto, 17.xi.1997; 3 ♀♀, ditto, 18.xi.1997; 2 ♀♀, ditto, 22.xi.1997 (all BMNH).

Comment. Parsons (1998: 414) reported a "distinctive unnamed race" of *A. lycaenoides* C. Felder, 1860 in the ANIC taken by Brandt at Kieta on Bougainville. These specimens have not been examined by the present author, but geographical proximity of the localities, together with known biogeographical distribution of butterfly taxa in the Solomons Archipelago, suggests that this material is probably

also referable to *A. l. orientalis*. Discovery of this butterfly on Choiseul extends the known range of *A. lycaenoides* eastwards.

Nymphalinae

***Algiachroa woodfordi malaitae* ssp. n. (Figs 21, 27)**

Description. Male fwl 34 mm; closely resembles *A. w. woodfordi* Godman & Salvin, 1888; upf white median band broad, markings in spaces 3–5 extended, making distal edge convex (band narrow, straight in all *A. w. woodfordi* examined); black median spot in space 1b large; holotype with second, smaller, spot in space 2 (not present in paratype, or in any *A. w. woodfordi* seen); uph like *A. w. woodfordi*, unf median band like ups; postmedian irregular dark-brown band narrow anteriorly (broader in *A. w. woodfordi*); genitalia not examined. Female unknown.

Distribution. Malaita.

Type material. HOLOTYPE ♂: Malaita, north, above Malu'u, SL-580 m, 24.x.1997, W. J. Tennent (BMNH); PARATYPE ♂: Malaita, Cape Astrolabe, 24.xi.1944, R. Shannon (BMNH).

Comment. The author is most grateful to Ray Shannon of Auckland, New Zealand, for making the paratype specimen of this taxon available for study, and for kindly agreeing to deposit it in the BMNH.

***Vindula arsinoe intermedia* ssp. n. (Figs 23, 24, 29, 30)**

Description. Male fwl 46 mm; resembles *V. arsinoe sapor* Godman & Salvin, 1888 (see comments, below); upf brown, black linear markings light, particularly submarginal and subapical lines (heavier in *V. a. sapor*); uph white submarginal markings in spaces 2, 3 and 4 clear white, reduced (more extensive, with that in space 4 often partly obscured by fuscous suffusion in *V. a sapor*); submarginal line broken into series of markings, weakly chevron shaped (more angular in *V. a. sapor*); mark in space 2 bar-like or weakly rounded basad (sharply angular in *V. a. sapor*); uns like *V. a. sapor*; genitalia not examined. Female resembles *V. a. clodia* (Godman & Salvin, 1888 from Ulawa island (the male of this race lacks ups white markings); hw tail at vein 3 short (longer in *V. a. clodia*).

Distribution. The Russell Group. Reported from Mbanika (Yandina) and Pavuvu islands; seen but not collected on Mane (Tennent, pers. obs.).

Type material. HOLOTYPE ♂: Solomon Islands, Russell Group, Pavuvu Island, SL-80 m, 27.x.1997, W. J. Tennent (BMNH); PARATYPES: 1 ♂, Russell Group, Mbanika Island, Yandina, SL, 29.x.1997, W. J. Tennent; 1 ♀, Russell Group, Pavuvu Island (west), Losilen village to Pavuvu Hill, SL-200 m, 28.x.1997 (all BMNH); 1 ♀, Russell Group, [Mbanika Island], Yandina, 18.i.1964; 1 ♀, ditto, 19.i.1964; 1 ♀, Russell Group, Pavuvu Island, 18.vii.1964; 1 ♂, 1 ♀, ditto, 19.vii.1964; 2 ♂♂, Russell Group, Banika [Mbanika] Island, 23.vii.1964; 1 ♂, 2 ♀♀, ditto, 24.vii.1964; 1 ♂, 1 ♀, ditto, 26.vii.1964; 3 ♂♂, 4 ♀♀, ditto, 27.vii.1964 (BPBM).

Comments. The status and distribution of Solomons races of *V. arsinoe* Cramer, 1777, a large nymphalid butterfly which occurs in a variety of well-defined races from India through south-east Asia to the Moluccas, Australia, New Guinea, the Bismarck Archipelago and the Solomon Islands, has been fundamentally confused by D'Abrera (1971, 1978, 1990).

Godman & Salvin (1888: 95–96) described *sapor* (TL: Alu [Shortland Group]), *catenes* (TL: Santa Ana [a satellite of San Cristobal]) and *clodia* (TL: Ulawa) as distinct species, whilst acknowledging their close affinity. More recently (Fruhstorfer,

[in Seitz] 1912; Talbot, 1932; D'Abrera, 1990), *catenes* and *clodia* have been regarded as subspecies of *arsinoe*, whilst *sapor* has been accorded species status, based on the white markings of the male uph and on minor differences in the early stages. Talbot (1932: 160) described *sapor albosignata* from Ranongga in the New Georgia Group. D'Abrera (1990: 204), partly paraphrasing Fruhstorfer (in Seitz, 1912) but with some confusing additional comments, recognised *arsinoe catenes* (Santa Ana), *arsinoe clodia* (Ulana [sic]), *sapor sapor* (Guadalcanal, Arawa and Choiseul), *sapor obscura* (Bougainville and Shortlands), and *sapor albosignata* ('Ranonga'), as occurring in the Solomon Islands. Parsons (1998: 624) also recognised *sapor* as a distinct species and followed D'Abrera in reporting the distribution of *sapor obscura* as Bougainville (politically part of Papua New Guinea, but geographically part of the Solomons Archipelago) and the Shortlands.

Detailed correction of D'Abrera (1990: 204) regarding Solomons *Vindula* taxa is beyond the scope of this paper. Suffice it to say here that the holotype of *sapor* is from Alu and that the type locality of *obscura* Ribbe, 1898, is the Shortlands. Alu is the largest of the Shortlands, often referred to locally simply as 'Shortland', and *obscura* Ribbe syn. n. is synonymous with *sapor* Godman & Salvin. Arawa (a D'Abrera locality for '*sapor sapor*') is a settlement on Bougainville (a D'Abrera locality for *sapor obscura*). The illustration said to be a female *sapor obscura* (D'Abrera, 1990: [205]), is a typical female of the highly distinctive race *albosignata* from New Georgia.

Whether or not *sapor* should properly be regarded as a species or as a race of *V. arsinoe* is open to question. Geographically (see Map 2), a distribution of *sapor* races (*sapor*, *intermedia* and *albosignata*) from Bougainville to Guadalcanal and Malaita, with a disjunct distribution of *arsinoe* races to the west (New Guinea etc.) and to the east (*clodia* and *catenes*), seems unlikely. Perceived differences between *arsinoe* and *sapor* appear sufficiently minor to place the latter as a subspecies of the former (*Vindula arsinoe sapor* stat. n.).

The easternmost representative of *V. arsinoe* is *V. a. catenes*, which occurs on the island of San Cristobal and its satellites although there is an unconfirmed report from Vanuatu. Samson spent two months, from January to March 1983, studying butterflies in Vanuatu, primarily on Efate and reported (Samson, 1983: 4) seeing males of an [unidentified] *Vindula* species on that island in a garden between Vila and Pango and saw one specimen sufficiently closely to observe that it lacked the white patches typical of *sapor* (Samson, pers. comm.). Distribution of Solomons races of *V. arsinoe* is shown on Map 2.

Mynes woodfordi shannoni ssp. n. (Figs 22, 28)

Description. Male fwl 28 mm; resembles other Solomons races of *M. woodfordi* Godman & Salvin, 1888; upf basal half creamy-white, extending almost to costa, uninterrupted basally or at inner margin (in other Solomons races, always with black border at costa; interrupted basally (variable)); subapical and marginal white markings inconspicuous; uph creamy white patch extensive; unf basal half white, with small elongate black basal mark (reduced and usually broken, or with more extensive basal black mark in other Solomons races); unh pale median patch large, extending to inner margin (unbroken in two specimens seen, thinly broken along submedian vein in a third) (distinctly broken into two separate marks by submedian vein in other Solomons races); genitalia not examined. Female not known.

Distribution. Malaita.

Type material. HOLOTYPE ♂: Solomon Islands, Malaita, north, Cape Astrolabe, 22.x.1944, R. Shannon (BMNH); PARATYPES: 1 ♂, Malaita, Auki to Fiu river,

SL-200 m, 25.x.1997, W. J. Tennent (BMNH); 1 ♂, Malaita, Tangtalau-Kuala, 24.ix.1957 (BPBM).

Etymology. Named for Mr Ray Shannon, of Auckland, New Zealand, who collected the holotype of this taxon whilst serving on Malaita during the Second World War, and kindly donated it to the BMNH.

Hypolimnas pithoeka leveri ssp. n. (Figs 25, 26, 31, 32)

Description. Small, male fwl 34 mm (36–50 mm in *H. p. pithoeka* Kirsch, 1877); upf white postmedian spots absent (variable, but rarely completely absent in *H. p. pithoeka*); uph with pale golden broad submarginal band containing series of postmedian white-pupilled black spots (plain, but band paler and generally obscure when present in *H. p. pithoeka* [but see comment, below]); unf postmedian white spots complete; unh submarginal band like ups, paler; genitalia not examined. Female small, fwl 38 mm (41–52 mm in *H. p. pithoeka*); ups postmedian spots well developed; upf apex with patch of white scales in spaces 7 and 8 (plain, or with discrete spots in *H. p. pithoeka*); uns similar.

Distribution. Santa Cruz Group. Reported from Ndeni and Vanikoro.

Type material. HOLOTYPE ♂: Solomon Islands, Santa Cruz Group, Ndeni Island, 5–8 km south of Lata, 160 m, 13.x.1997, W. J. Tennent (BMNH); PARATYPES: 1 ♀, same data as holotype; 1 ♀, Santa Cruz Group, Ndeni Island, 0–5 km south of Lata, 60–160 m, 10.x.1997, W. J. Tennent; 1 ♀, ditto, 11.x.1997 (all BMNH); 1 ♂, Santa Cruz Group, Vanikoro Island, v.–vi.1933, R. A. Lever (OUM).

Etymology. This taxon is named in recognition of the late R. A. Lever, who collected and studied Solomon Islands butterflies and whose material, in the BMNH and OUM collections, has been of great assistance in current studies.

Comment. *H. pithoeka* closely resembles the resident 'brown' *Euploea* species and *D. affinis* (both Danainae) on different Solomon Islands, including the remarkable white-bordered mimetic assemblages of San Cristobal and Malaita. The Santa Cruz Group is no exception and *H. p. leveri* is approximately two thirds of the size of *pithoeka* elsewhere in the Solomons; both sexes are effective mimics of the Santa Cruz *Euploea* species. Gross (1975: 418) reported *pithoeka* from Vanuatu. Samson (1979: 11) mentioned nominotypical *pithoeka* from the Solomons (excluding Rennell and Bellona), including the Santa Cruz Group and from Vanuatu. Later (Samson, 1983: 4) he recorded a *pithoeka* 'subsp.' from Vanuatu. No specimens from Vanuatu have been available for examination and it is possible that Vanuatu populations are referable to this taxon.

D'Abrera's treatment (D'Abrera, 1978, 1990) of *H. pithoeka* in the New Guinea region was muddled. In addition to overlooking a number of well-defined subspecies (Parsons, 1998: 610), no account was taken of the long series of *pithoeka* from the Solomon Islands in the BMNH when raising the name *salomonis* for *pithoeka* from Guadalcanal (D'Abrera, 1978: 219). Brief diagnostic features, including perceived differences in wing shape, given for separation of *salomonis* D'Abrera syn. n. fall within the range of nominotypical *H. pithoeka*. The male holotype of '*salomonis*' illustrated (D'Abrera, 1978; 1990: 219) is *f. illuminata* Fruhstorfer, which may occur in any Solomons population.

Cyrestis acilia russellensis ssp. n. (Figs 33, 34, 41, 42)

Description. Holotype male fwl 25 mm (a second male is 31 mm); closely resembles other Solomons races of *C. acilia* Godart, 1819; in general appearance intermediate

between *C. a. ulawana* Martin, 1903 (Ulawa) and *C. a. nitida* Mathew, 1887 (the remainder of the Solomons except San Cristobal); on both surfaces fw white median band straight, of equal width from costa to inner margin (generally wider, significantly wider at inner margin than at costa in *C. a nitida*; very narrow, often obscured at costa in *C. a. ulawana*; very wide, 'bent' near costa in *C. a. solomonis* Mathew, 1887); other markings variable, typical of *C. acilia*; genitalia not examined. Female like male; basal edge of median white line ill-defined in two of three females seen.

Distribution. The Russell Group.

Type material. HOLOTYPE ♂: Solomon Islands, Russell Group, Mane Island, SL-80 m, 28.x.1997, W. J. Tennent (BMNH); PARATYPES: 1 ♂, 1 ♀, Russell Group, Pavuvu Island, SL-80 m, 27.x.1997, W. J. Tennent; 1 ♀, Russell Group, Pavuvu Island (west), Losilen village to Pavuvu Hill, SL-200 m, 28.x.1997, W. J. Tennent; 1 ♀, Russell Group, Marulaon Island, SL-40 m, 27.x.1997, W. J. Tennent (all BMNH).

Comment. Situated 40 km west of Guadalcanal and 90 km east of the New Georgia Group, the Russells are a compact group of small islands which have been little studied, probably due to the fact that with the exception of much of central Pavuvu, the islands have been largely given over to the commercial production of coconuts. Russells populations of most butterfly species are identical to those on the large island of Guadalcanal to the east, although recent studies have shown that populations of some widespread species in addition to *Cyrestis acilia* (*Vindula arsinoe* and *Mycalesis splendens* Mathew, 1887) have evolved distinct races on the Russells.

Phaedyma fissizonata olega ssp. n. (Figs 35, 36, 43, 44)

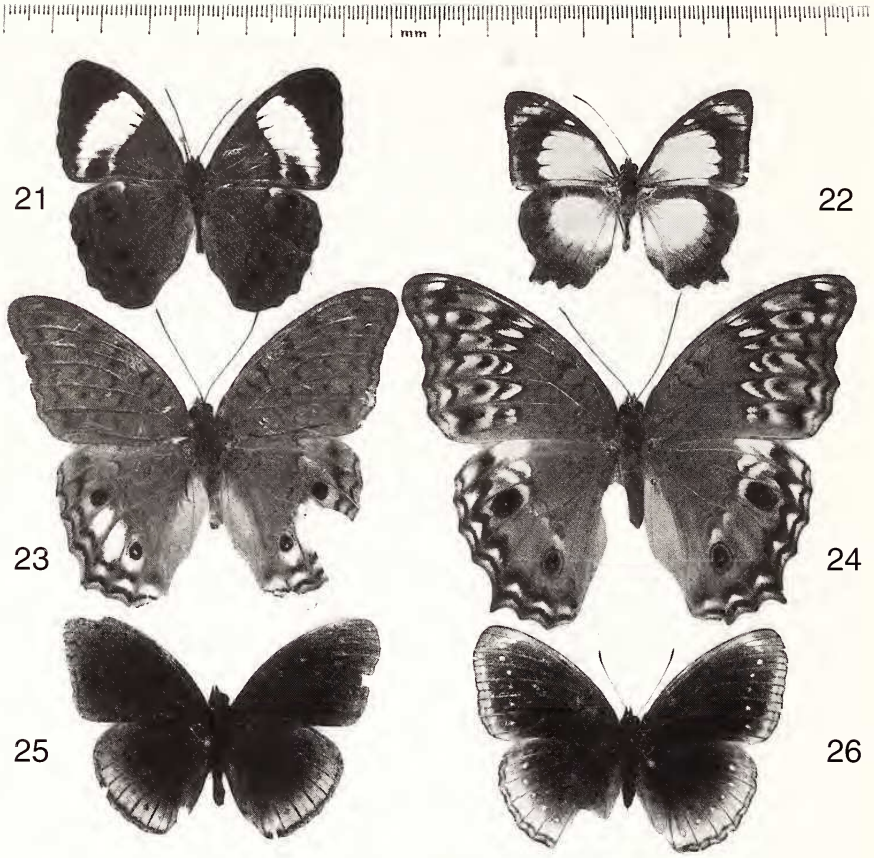
Description. Male fwl 32 mm; resembles other Solomons races of *Ph. fissizonata* Butler, 1882; closest to *Ph. f. pisias* Godman & Salvin, 1888; uph median markings small, forming narrow band (markings consistently larger, forming wider band, in *Ph. f. pisias*); uph submarginal pale markings obscure, suffused with dark scales (obscure or with vestigial white spots in spaces 5 & 6 in *Ph. f. pisias* [variable]; usually with complete series of obscure white spots in *Ph. f. vella* Eliot, 1969 [variable]; full series of prominent white spots in *Ph. f. fissizonata*); genitalia typical of *Ph. fissizonata* (see *Ph. f. philipi*, Fig. 73). Female similar.

Distribution. Treasury Island.

Type material. HOLOTYPE ♂, Solomon Islands, Treasury Group, Mono Island, SL-40 m, 1.xii.1997, W. J. Tennent (BMNH); PARATYPES: 2 ♂♂, 2 ♀♀, same data as holotype (inc. gen. prep. BMNH (V) 5153); 1 ♂, 2 ♀♀, Treasury Group, Stirling Island, SL-40 m, 30.xi.1997, W. J. Tennent; 1 ♂, Treasury, G. F. Mathew; 1 ♀, Treasury, 5–10.viii.1901, Meek; 1 ♀, ditto, 9.viii.1901 (all BMNH).

Etymology. Named for Queensland Olega, who provided the author with hospitality on Treasury Island, in recognition of his efforts for eco-tourism, despite the difficulties of local transport and the relative remoteness of his home.

Comment. Based on limited material in the BMNH, Eliot (1969: 129) remarked on some minor observed differences in submarginal markings between *Ph. fissizonata* populations from Treasury Island and those from the range of *Ph. f. pisias*. Further material has established that the latter are variable, but that constant differences separate Treasury populations from the other Solomons races. See also comments under *Ph. f. philipi* ssp. n. (below).

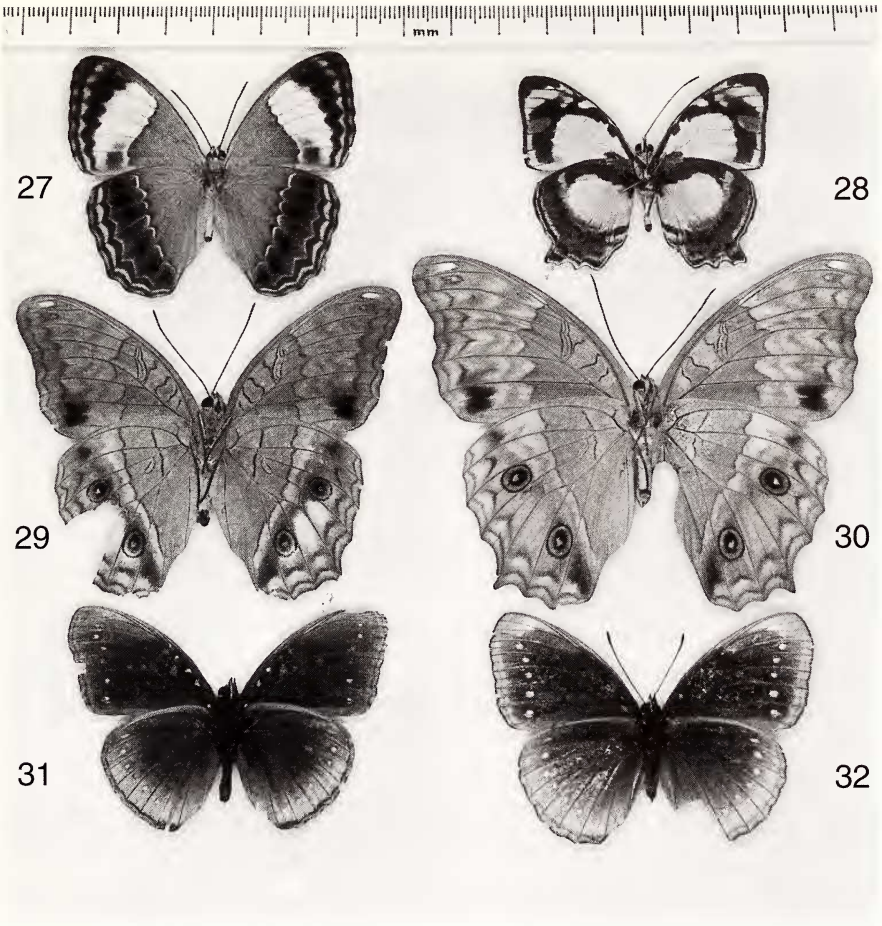


Figs 21–26, upperside, 27-32, underside. *Algiachroa woodfordi malaitae* ssp. n. (Malaita), 21, 27 ♂ holotype; *Mynes woodfordi shannoni* ssp. n. (Malaita), 22, 28 ♂ holotype; *Vindula arsinoe intermedia* ssp. n. (Russell Group), 23, 29 ♂ holotype; 24, 30 ♀ paratype; *Hypolimnas pithoeka leveri* ssp. n. (Santa Cruz Group), 25, 31 ♂ holotype; 26, 32 ♀ paratype;

Phaedyma fissizonata philipi ssp. n. (Figs 37, 38, 45, 46, 73)

Description. Male fwl 30 mm; uph median markings of average width in comparison to other Solomons races of *Ph. fissizonata*, but with those in spaces 1a and 1b, adjacent to inner margin, severely constricted, sometimes vestigial (some Treasury specimens are intermediate between this and other Solomons races; not seen in any of several hundred individuals of other Solomons races examined); uph submarginal pale markings obscure (in three ♂♂ examined); genitalia (Fig. 73) like typical *fissizonata*. Female similar; ups submarginal markings variable, but usually present.

Distribution. Ulawa.

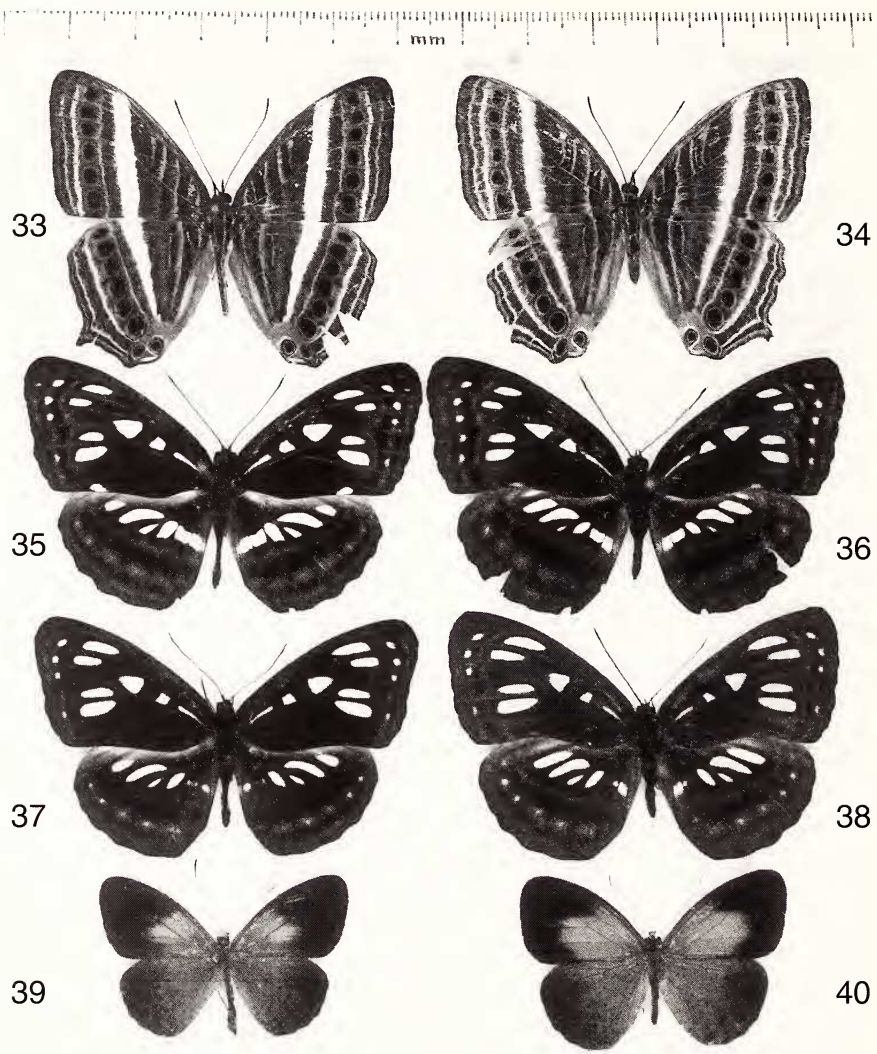


Figs 27–32 (caption opposite).

Type material. HOLOTYPE ♂: Solomon Islands, Ulawa, north, Kellmei and Harrina village areas, SL-40 m, 24.iii.1997, W. J. Tennent (BMNH); PARATYPES: 1 ♂, 2 ♀♀, same data as holotype; 1 ♂, 2 ♀♀, Ulawa, north, Su'umoli village area, SL, 23.iii.1997, W. J. Tennent (BMNH (V) 5152); 2 ♀♀, ditto, 22.iii.1997 (all BMNH).

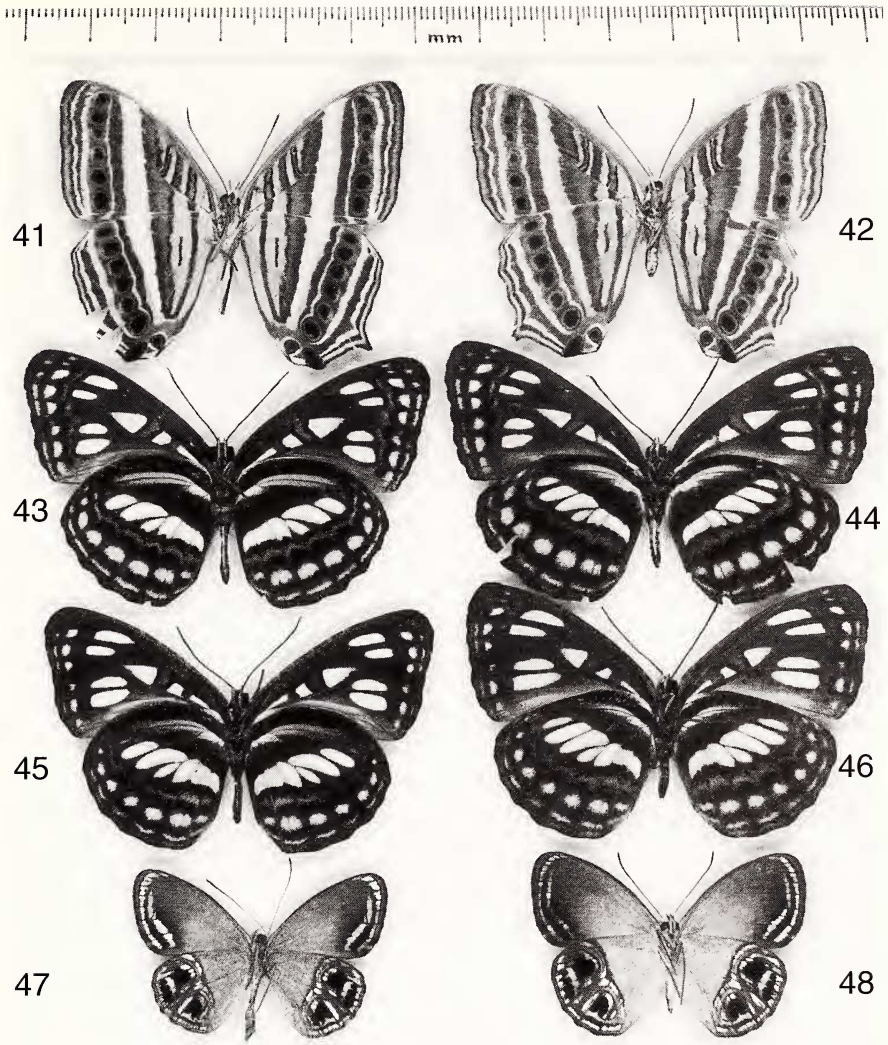
Etymology. Named for Philip Paewane and his brother Alex Pwahe, without whose hospitality, courtesy and practical assistance, the author would have experienced difficulty in carrying out field work on Ulawa.

Comment. The Solomons *fissizonata* taxa were examined by Eliot (1969) who raised two new names (*vella* and *viridens*) and several questions. Long series collected on different islands in 1996 and 1997 confirm Eliot's views in almost all regards. It was thought that white and green forms might be seasonal, and there may indeed be a seasonal element in some populations, for example on Guadalcanal, where all individuals seen were white in July and August 1996 and



Figs 33–40, upperside, 41–48, underside. *Cyrestis acilia russellensis* ssp. n. (Russell Group). 33, 41 ♂ holotype; 34, 42 ♀ paratype; *Phaedyma fissizonata olega* ssp. n. (Treasury), 35, 43 ♂ holotype; 36, 44 ♀ paratype; *Ph. f. philipi* ssp. n. (Ulawa), 37, 45 ♂ holotype; 38, 46 ♀ paratype; *Argyronympha danker* sp. n. (Malaita), 39, 47 ♂ holotype; 40, 48 ♀ paratype.

mostly pale green in October 1996 and April 1997. In general however, colour forms are not seasonal in any clear cut sense and white and green forms may occur together in all populations. Presence of a greenish tinge is not geographically or seasonally consistent in other *Phaedyma* species, e.g. *P. sheperdi* Moore, 1858 (Dunn & Dunn, 1991: 559).



Figs 41–48 (caption opposite).

The name *vella* was raised by Eliot (1969: 129) to describe specimens from Vella Lavella, Ranongga and Gizo. He went on to say that examples from New Georgia and Rendova showed some affinity with *pisias* but that they were "nearer to ssp. *vella* under which they are provisionally placed". Experience with other butterfly taxa suggests it would be unusual for different races of the same widespread species to fly on different islands of the New Georgia Group, and further material obtained

recently suggests that diagnostic features described by Eliot in raising the name *vella* hold true for *fissizonata* on all islands of the New Georgia Group from which material is available.

Prior to field work in 1996 and 1997, when a short series of both sexes were collected, the San Cristobal taxon *viridens* was known only from two females. In raising the name *viridens* as a ssp. of *fissizonata*, Eliot (1969: 130) suggested it may be worthy of species rank. Significant differences in phenotype, adult behaviour (Tennent, in prep.) and genitalia between *viridens* and *fissizonata* occurring in the remainder of the Solomons support this view and, as a result, *Ph. viridens* stat. n. is here raised to species status. No white form of *Ph. viridens* has been seen. Eliot (1969: 147) illustrated the valves of several *Phaedyma* species, not including *Ph. fissizonata* and so far as is known, genitalia of Solomons *Phaedyma* have not been illustrated elsewhere. The genitalia of *Ph. fissizonata philipi* (Fig. 73) are typical of the genus and there is little or no variation between *fissizonata* races. The genitalia of male *viridens* (Fig. 74) differ from *fissizonata* in several significant respects, including the tegumen (posterior of tegumen angular, squat in *Ph. fissizonata*; more rounded in *Ph. viridens*), saccus (slim with sharp angle dorsally in *Ph. fissizonata*; more bulky, not angled dorsally in *Ph. viridens*) and valve (longer in *Ph. fissizonata* than in *Ph. viridens*).

Eliot also said (1969: 130) "There are no examples in the BMNH from the large and little-known island of Malaita; it is conceivable that a form linking *viridens* with the other subspecies may be found there". Malaitan *Ph. fissizonata* is nominotypical.

Satyrinae

Argyronympha danker sp. n. (Figs 39, 40, 47, 48, 77)

Description. Male fwl 20 mm; fw narrow; ups resembles *A. gracilipes* Jordan, 1924 (Guadalcanal and Florida); basal orange colour orange-yellow (dull orange in *A. gracilipes*); uns resembles *A. rubianensis* Grose-Smith, 1889 (New Georgia Group) in colour and pattern; the shape of the yellow unh postmedian bars contained within large black areas in spaces 2–3 (posterior) and 5–6 (anterior), part of a complex arrangement of orange, black and iridescent silver markings, is diagnostic in all species of *Argyronympha*. In *danker*, the anterior bar is long, rounded basally, prominently serrated distally (shorter, squat, occasionally weakly serrated distally in *A. rubianensis*; with deep double chevron basally in *A. gracilipes*); posterior bar thin, extending basad in space 3 (more prominent, thickened in space 3 in *A. rubianensis*); genitalia (Fig. 77) typical of *Argyronympha*; valve and uncus long, slender, pseuduncus strongly curved, with single, 'hooked' lobe posteriorly (not strongly curved, with three irregular lobes in *A. rubianensis* (Fig. 75) and *A. gracilipes* (Fig. 76)); aedeagus long, deeply curved (shorter, curve shallow in *A. rubianensis* and *A. gracilipes*). Female like male; basal orange more extensive (reduced in *A. gracilipes*); uns like male.

Distribution. Malaita.

Type material. HOLOTYPE ♂: Solomon Islands, Malaita, north, above Malu'u, SL-580 m, 24.x.1997, W. J. Tennent (BMNH); PARATYPES: 3 ♂♂, 4 ♀♀, same data as holotype; 5 ♂♂, 4 ♀♀, Malaita, Auki to Fiu river, SL-200 m, 11.iv.1997, W. J. Tennent; 4 ♂♂, 1 ♀, ditto, 22.x.1997 (all BMNH); 2 ♂♂, 1 ♀, Malaita, Tangtalau to Kwalo, 24.ix.1957; 1 ♀, Malaita, Tangtalau, 26.ix.1957; 1 ♂, 1 ♀, Malaita, Dala, 6.vi.1964; 1 ♂, ditto, 11.vi.1964; 2 ♂♂, 1 ♀, ditto, 50 m, 22.vi.1964, J. & M. Sedlacek;

3 ♂♂, 6 ♀♀, ditto, 7–22.vi.1964; 2 ♀♀, Malaita, Andalima to Ngarafata, near Fiu river, no date (all BPBM).

Comment. There is no published record of any *Argyronympha* species from Malaita, aside from that of D'Abrera (1990: 268), who included "Malaita (?)" in the distribution of *A. ulava* Grose-Smith, 1889, the *Argyronympha* species endemic to Ulawa. No recent illustration of the large and distinctive *A. ulava* is extant, and this may explain why the few Malaitan *Argyronympha* in collections in Honiara (DCRS), Canberra (ANIC) and Hawaii (BPBM), have tentatively been labelled as *ulava*. *A. danker* is common on Malaita.

Danainae

Tirumala hamata richardi ssp. n. (Figs 61, 62, 67, 68)

Description. Male fwl 42 mm; like other races of *T. hamata* Macleay, 1827, but with markings significantly reduced; upf marginal and submarginal series of spots reduced in size and number (variable: absent in holotype); uph marginal series absent or vestigial (small, but usually present in *T. h. obscurata* Butler, 1874; prominent in *T. h. insignis* Talbot, 1943); submarginal series small, often incomplete (small, complete in *T. h. obscurata*; extensive, lozenge-shaped in *T. h. insignis*); uns markings like other *hamata* races; markings reduced in size and number; genitalia not examined. Female similar.

Distribution. Ulawa.

Type material. HOLOTYPE ♂: Solomon Islands, Ulawa, north, Harrina village area, 40 m, 25.iii.1997, W. J. Tennent (BMNH). Paratypes: 2 ♀♀, same data as holotype; 2 ♂♂, 2 ♀♀, Ulawa, north, Su'umoli, SL, 22.iii.1997; 1 ♂, 1 ♀, Ulawa, north, Kellmei and Harrina village areas, SL-40 m, 24.iii.1997; 1 ♂, 1 ♀, Ulawa, Woodford (all BMNH).

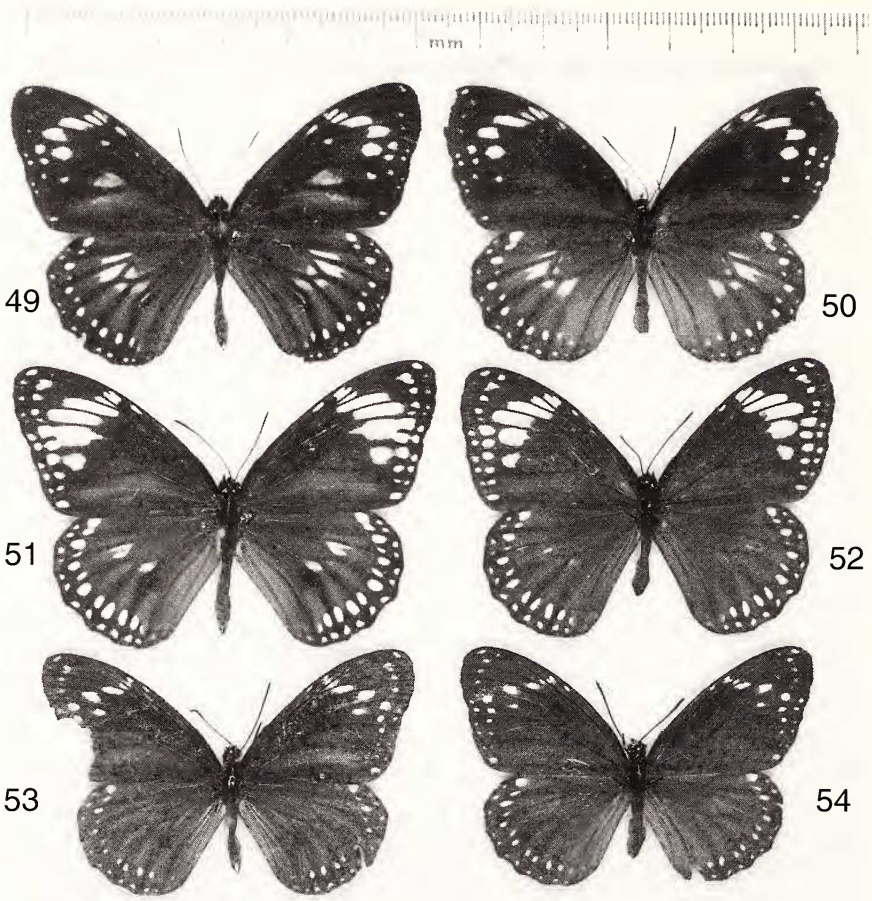
Etymology. This distinctive taxon is named for Dick Vane-Wright, world authority on danaine butterflies, whose practical support and encouragement for the author's Solomons butterfly research has been unwavering.

Comment. It is interesting that, in the Solomons, the race with the most developed markings (*T. h. insignis*—Malaita) and that with the least developed markings (*T. h. richardi*—Ulawa), fly on islands only 45 km apart.

Danaus affinis monoensis ssp. n. (Figs 49, 50, 55, 56)

Description. Male fwl 36 mm; superficially similar to other Solomons races of *D. affinis* Fabricius, 1775 (see below); dissimilar to the widespread *D. a. decipiens* Butler, 1882, which flies throughout the western Solomons; closest in appearance to populations from Ulawa (see *D. a. ulawaensis* ssp. n., below); ups dull orange-brown, with outer two-thirds of fw, all wing margins and veins suffused black; upf subapical white markings well developed (vestigial in *D. a. decipiens*); upf marginal and submarginal white spots small, series incomplete; uph marginal and submarginal white spots prominent, series complete (small, series incomplete in *D. a. decipiens*); median white markings large, well developed, extending to cell (small, not extending to cell in *D. a. decipiens*); uns markings similar to ups; genitalia not examined. Female similar.

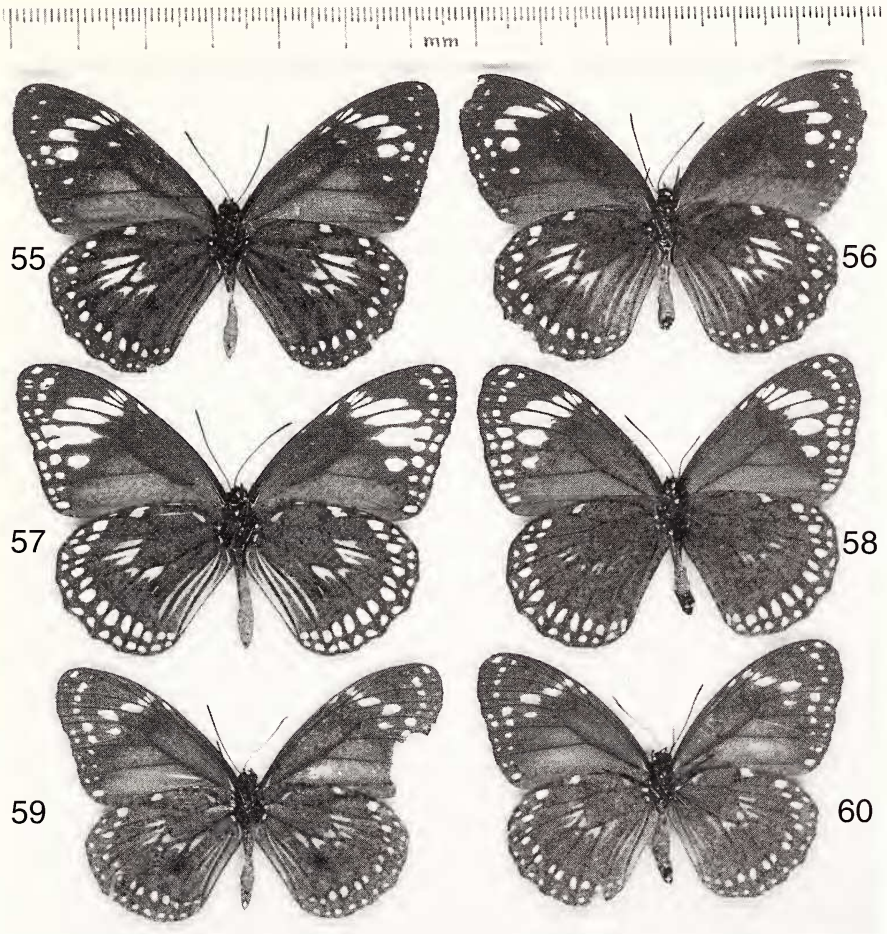
Distribution. Treasury Island.



Figs 49–54, upperside, 55–60, underside. *Danaus affinis monoensis* ssp. n. (Treasury), 49, 55 ♂ holotype; 50, 56 ♀ paratype; *D. a. ulawaensis* ssp. n. (Ulawa), 51, 57 ♂ holotype; 52, 58 ♀ paratype; *D. a. mendana* ssp. n. (Santa Cruz Group), 53, 59 ♂ holotype; 54, 60 ♀ paratype.

Type material. HOLOTYPE ♂; Solomon Islands, Treasury Group, Stirling Island, SL-40 m, 2.xii.1997, W. J. Tennent (BMNH); PARATYPES: 1 ♂, 1 ♀, same data, 30.xi.1997 (both BMNH).

Comment. Despite its small size, remote Treasury is home to a number of interesting butterfly taxa. At species level it is not known to have any endemic butterflies (with the possible exception of a recently described *Arhopala* species [Tennent, 1999a]), but the fauna includes several distinctive endemic subspecies (Tennent, 1998). *D. a. decipiens* was reported from Treasury Island by Ackery & Vane-Wright (1984: 150) but the specimen(s) on which this was based have not been located. Two males and a female taken on Treasury in 1997 are quite different from



Figs. 55–60 (caption opposite).

decipiens, which flies to the north (Shortlands), north-east (Choiseul) and east (New Georgia Group) of Treasury. See also notes under *D. a. mendana* ssp. n. (below).

Danaus affinis ulawaensis ssp. n. (Figs 51, 52, 57, 58)

Description. Male fwl 38 mm; resembles other Solomons *affinis* races, including *D. a. monoensis* ssp. n. (Treasury, see above) and, particularly, *D. a. albonotata* Howarth, 1962 (Rennell). Ups marginal and submarginal white spots large, prominent; upf subapical white markings prominent, with tendency to streak; uph median white markings absent in most individuals seen, vestigial in some (more prominent in *D. a. monoensis* and *D. a. albonotata*); uns similar markings; genitalia

not examined. Female similar; one female paratype has upf white median markings in spaces 1b and 2, and extensive hw median white markings.

Distribution. Ulawa.

Type material. HOLOTYPE ♂: Solomon Islands, Ulawa, Su'umoli, SL, 22.iii.1997, W. J. Tennent (BMNH); PARATYPES: 5 ♂♂, 3 ♀♀, same data as holotype; 2 ♂♂, Ulawa, Kellmei and Harrina village areas, SL-40 m, 24.iii.1997; 1 ♂, 2 ♀♀, Ulawa, Harrina village area, 40 m, 25.iii.1997, W. J. Tennent (all BMNH); 1 ♂, Ulawa, v.1934, R. A. Lever (OUM); 1 ♂, ditto, 19.v.1934 (OUM).

Comment. This is one of several distinctive butterflies apparently confined to the small island of Ulawa, despite the close proximity of that island to Malaita. Both the *Euploea* and *D. affinis* phenotypes which fly there have more affinity with distant dark-winged western races than with the white-winged forms of nearby Malaita and San Cristobal, a circumstance which prompted Ackery & Vane-Wright (1984: 152) to question the labelling accuracy of some of Woodford's Ulawa danaine butterflies.

Danaus affinis mendana ssp. n. (Figs 53, 54, 59, 60)

Description. Male fwl 33 mm; small and dull in comparison to other Solomon Islands races; ups markings small and inconspicuous (vestigial or absent in *D. a. decipiens*; more extensive in all other Solomons races); median white markings absent; uns with similar markings, dull; genitalia not examined. Female similar.

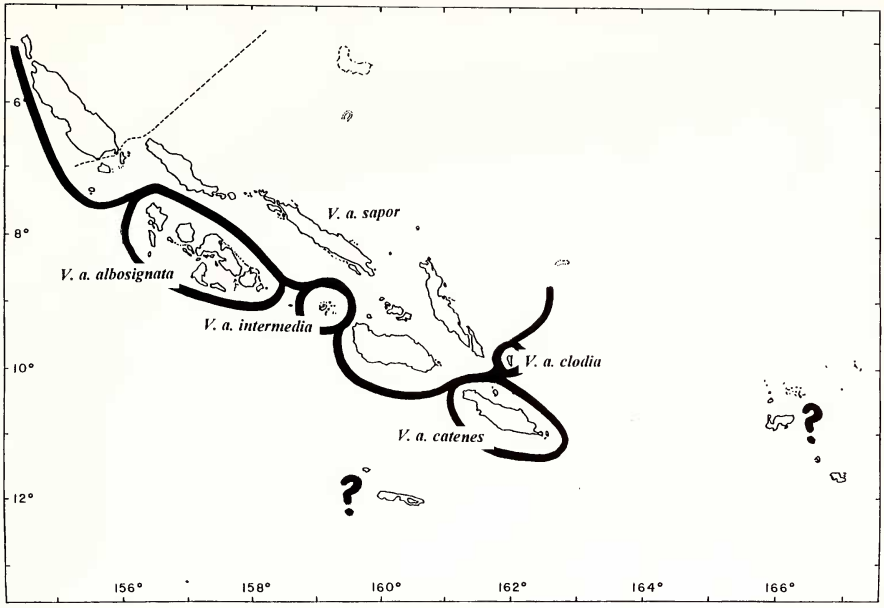
Distribution. Reported from Ndeni (Santa Cruz) and the Reef Islands, flying in January, February and October. It is not known whether *D. affinis* flies on other islands of the Santa Cruz Group.

Type material. HOLOTYPE ♂: Solomon Islands, Santa Cruz Group, Ndeni Island, 10–15 km south of Lata, 100–180 m, 14.x.1997, W. J. Tennent (BMNH). PARATYPES: 1 ♀, Santa Cruz Group, Ndeni Island, Graciosa Bay, Luembalble river to Luesalo (RTC), SL, 12.x.1997, W. J. Tennent; 4 ♂♂, 2 ♀♀, Santa Cruz [Ndeni], Graciosa Bay, 20.ii.1956, F. R. Hollins (all BMNH).

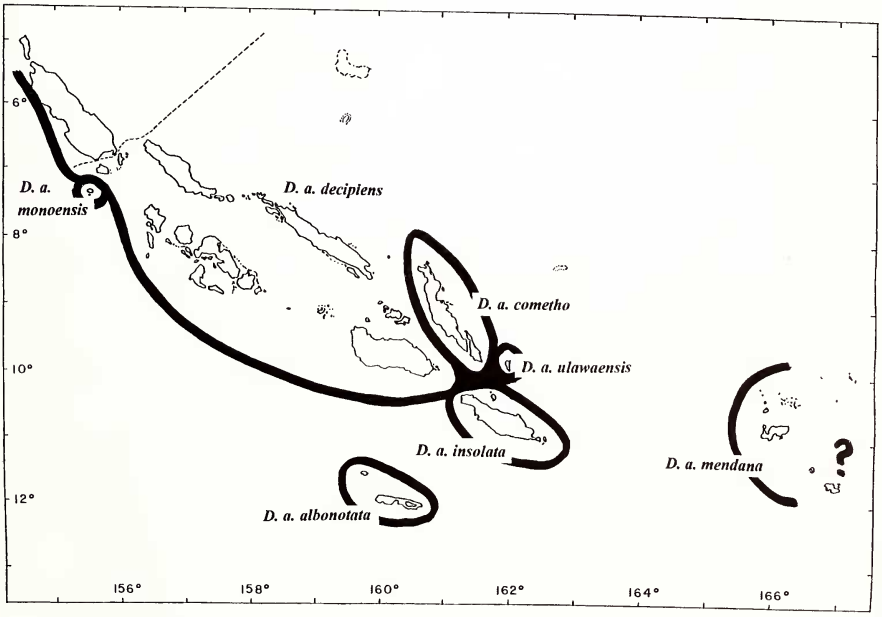
Etymology. Named after the Spanish explorer Alvaro Mendaña, credited with being the first European to 'discover' the Solomon Islands, whose second, ill-fated, expedition to the western pacific in 1595, resulted in his death from disease on Ndeni.

Comment. Placement of populations of *D. affinis* to subspecies is often uncertain (R. I. Vane-Wright, pers. comm.) and the status of the many widely diverse Pacific populations is not clear. The species is inclined to evolve distinctive phenotypes on islands throughout the Malay Archipelago and it flies throughout the Solomons, including the Santa Cruz Group, with several distinct races on remote islands. In overall appearance, races often have little obvious affinity with those on neighbouring islands, possibly due to a 'founder effect' which allows for rapid divergence from a limited gene pool brought by 'founder' individual colonists. In the Solomons, there is also what is presumed to be significant pressure on phenotype brought about by mimetic relationships among species of *Euploea*, *Danaus* (Danainae) and *Hypolimnas* (Nymphalinae).

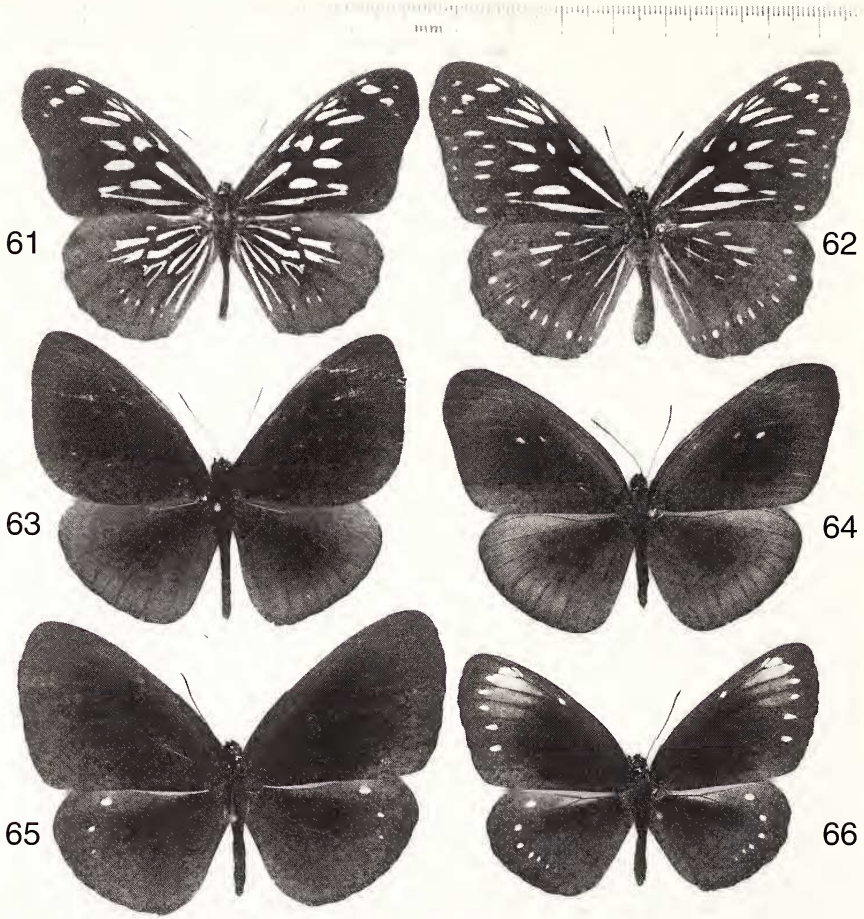
Ackery & Vane-Wright (1984: 153) remarked on a "curious *D. affinis* form" based on specimens in the BMNH from the Santa Cruz Group. Further material has since become available. In comparison with other Solomons *affinis*, this race is small and dull, with all white markings reduced in size and extent. This paper raises the number of described *D. affinis* races present in the Solomon Islands to seven: *decipiens* (TL: 'Solomon Islands'); *monoensis* (TL: Treasury); *albonotata* (TL: Rennell); *cometho* Godman & Salvin, 1888 (TL: Malaita); *ulawaensis* (TL: Ulawa); *insolata* Butler, 1870



Map 2. Distribution of *Vindula arsinoe* in the Solomon Islands.



Map 3. Distribution of *Danaus affinis* in the Solomon Islands.

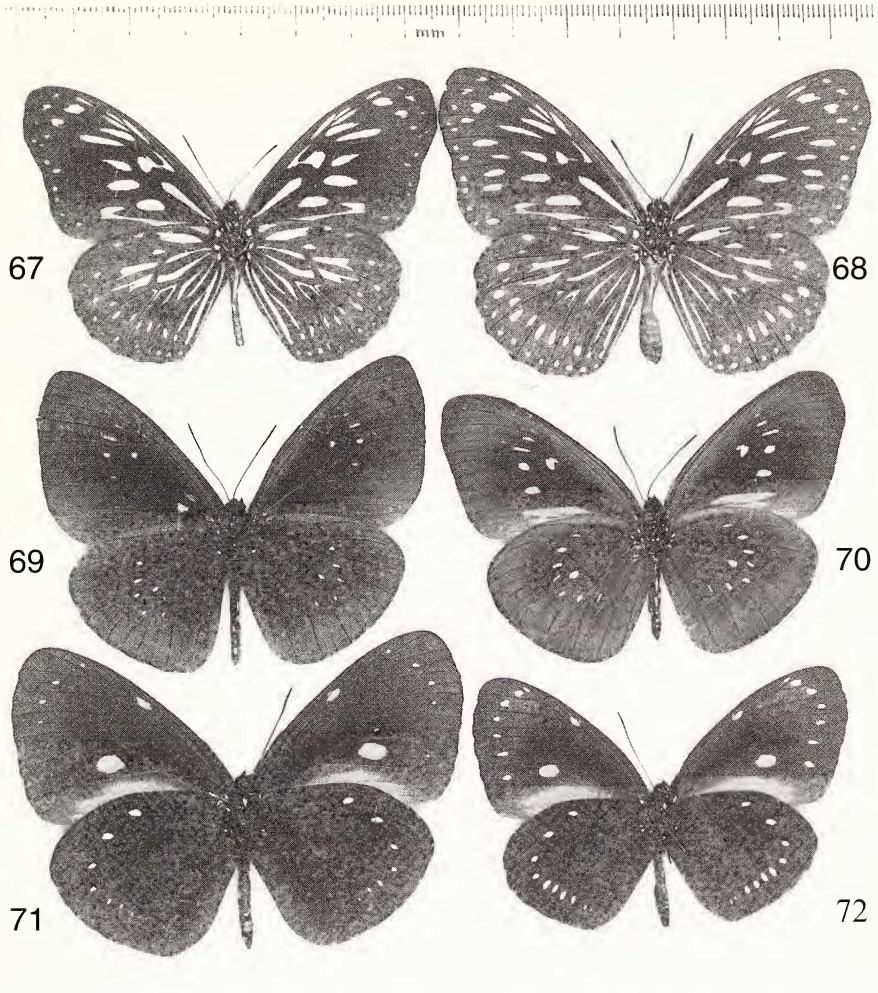


Figs 61–66, upperside, 67–72 underside. *Tirumala hamata richardi* ssp. n. (Ulawa), 61, 67 ♂ holotype; 62, 68 ♀ paratype; *Euploea batesii ackeryi* ssp. n. (Ulawa), 63, 69 ♂ holotype; 64, 70 ♀ paratype; *Euploea leucostictos polymela* (Ulawa), 65, 71 ♀; *Euploea leucostictos* form *roseus* form n. (Ulawa), 66, 72 ♀ type.

(TL: 'Solomon Islands' [San Cristobal]); *mendana* (TL: Ndeni). Distribution of these races is shown on Map 3.

Euploea batesii ackeryi ssp. n. (Figs 63, 64, 69, 70)

Description. Male fwl 40 mm; similar to other Solomons races of *E. batesii* C & R Felder, 1865; ups brown, unmarked (variable, but usually with upf postdiscal spot

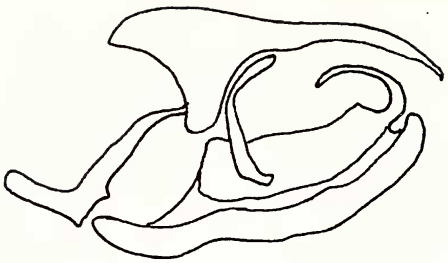


Figs 67–72 (caption opposite).

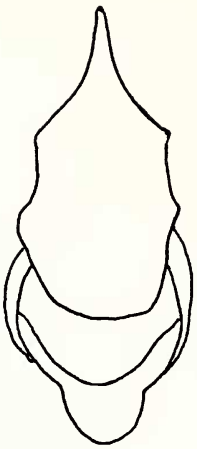
and at least a trace of upf pale streak above submedian vein in *E. b. honesta* Butler, 1882; uph with submarginal series of white spots in *E. b. woodfordi* Godman & Salvin, 1888; upf apex extensively suffused white in *E. b. leucacron* Carpenter, 1953); uns brown; median/postmedian spots reduced in size and number; genitalia not examined. Female ups unmarked except for 2 or 3 obscure fw discal spots, no trace of prominent pale streak above median vein which characterises most individuals of *E. b. honesta*; uns similar to *E. b. honesta*; markings small.

Distribution. Ulawa.

Type material. HOLOTYPE ♂: Ulawa, north, Su'umoli, SL, 22.iii.1997, W. J. Tennent (BMNH); PARATYPES: 1 ♀, same data as holotype; 1 ♀, Ulawa, north,



73a



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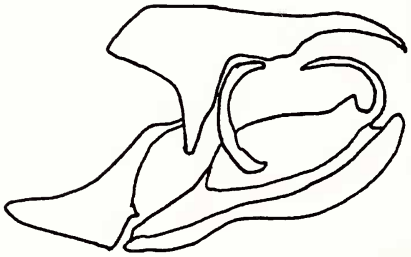

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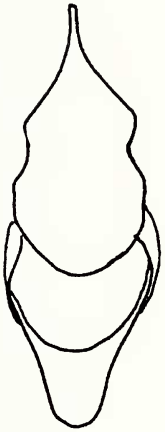
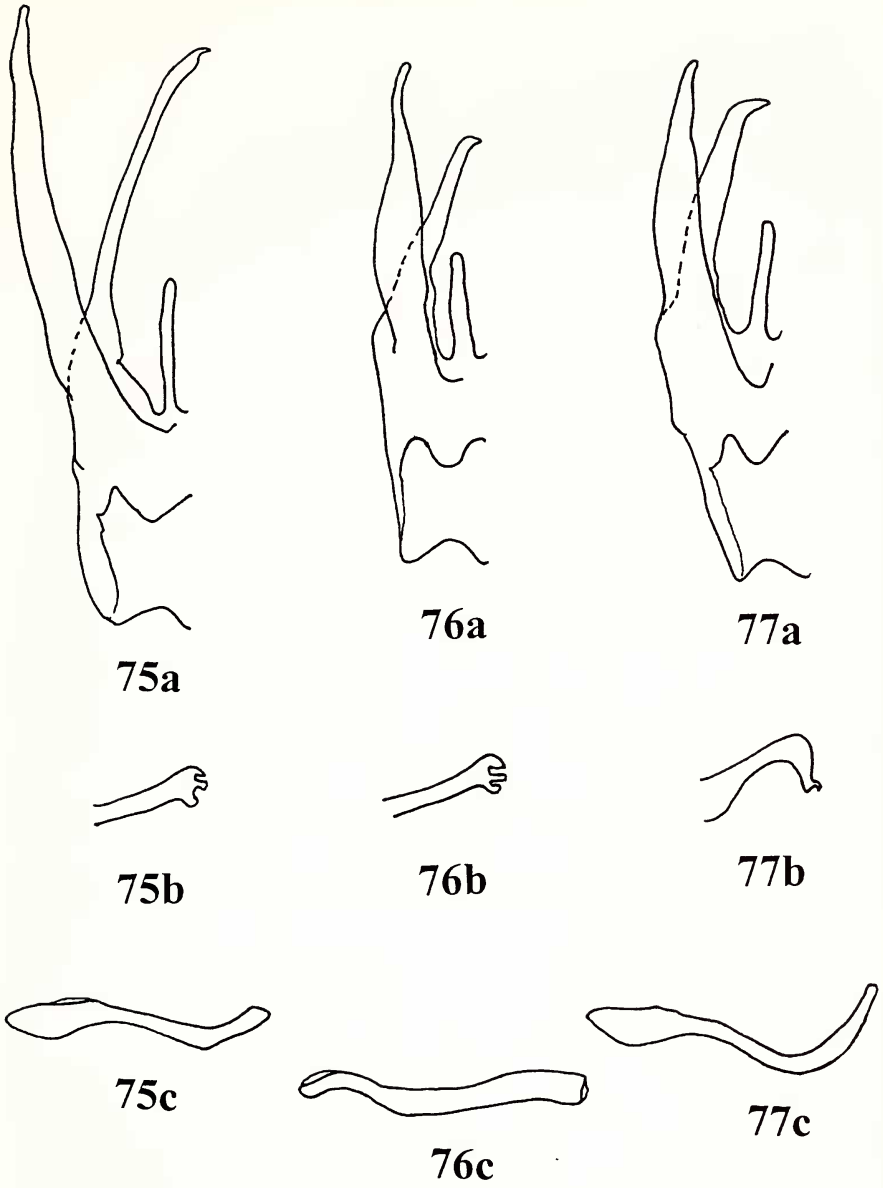


74b

Figs 73–74, male genitalia. 73, *Phaedyma fissizonata philipi* a, genitalia (lateral view), aedeagus removed; b, tegumen (dorsal view); c, aedeagus (lateral view); 74, *Phaedyma viridens* a, genitalia, aedeagus removed (lateral view); b, tegumen (dorsal view).



Figs 75–77, male genitalia. 75, *Argyronympha rubianensis* a, genitalia (right side), aedeagus removed; b, pseuduncus (posterior section) (lateral view); c, aedeagus (lateral view); 76, *Argyronympha gracilipes* a–c, ditto; 77, *Argyronympha danker* a–c, ditto.

Kellmei and Harrina village areas, SL-40 m, 24.iii.1997, W. J. Tennent (both BMNH).

Etymology. This taxon is named after Phil Ackery, authority on the Danainae.

Comment. As with several other Ulawa endemic butterfly taxa, *batesii* from Ulawa is more similar in appearance to races which fly on islands further to the west than to those on the adjacent islands of Malaita, immediately to the west, or San Cristobal to the south.

Euploea leucostictos form *roseus* form n. (Figs 66, 72)

Description. Female fwl 40 mm; resembles *E. l. bellona* Howarth, 1962 (Bellona); upf dark brown; submarginal white spots prominent; subapical spots in spaces 4–8 with pinkish-white scales extending basad, particularly in space 6 (lacking in *E. l. bellona*; upf unmarked in *E. l. polymela* Godman & Salvin, 1888); upf submarginal spots prominent (small, series incomplete in *E. l. polymela*); uns with typical *leucostictos* markings, prominent (usually small, inconspicuous in *E. l. polymela*).

Distribution. Ulawa.

Type material. HOLOTYPE ♀: Solomon Islands, Ulawa, north, Harrina village area, 40 m, 25.iii.1997, W. J. Tennent (BMNH).

Comment. The race of *E. leucostictos* which occurs on Ulawa is *E. l. polymela*, which also occurs on the Shortlands, Treasury, Choiseul, Santa Isabel, Malaita, the New Georgia Group, Florida and Guadalcanal. The status of f. *roseus*, described as a form of *leucostictos*, is not clear. It is very different in appearance to the usual female of *E. l. polymela* (Figs. 65, 71), which varies little. The individual described was very distinctive in flight; no other specimens were seen.

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